

39TH ANNUAL
**SCIENCE &
ENGINEERING FAIR
AWARDS 2023**



Where your future takes flight.



CORONA-NORCO UNIFIED SCHOOL DISTRICT

SCIENCE & ENGINEERING FAIR AWARDS 2023

WELCOME

THE ANNUAL DISTRICT SCIENCE AND ENGINEERING FAIR IS AN EVENT WE ALWAYS LOOK FORWARD TO. THE PROJECTS SHOWCASE THE SKILLS, INTELLIGENCE, AND HARD-WORKING EFFORTS OF OUR STUDENTS. EVERY YEAR PARTICIPATION INCREASES, WITH HUNDREDS OF STUDENTS CREATING SCIENCE PROJECTS AT THEIR SCHOOL SITES. THIS EVENT PROVIDES A UNIQUE OPPORTUNITY FOR STUDENTS TO EXPLORE THE WONDERS OF SCIENCE WITH THEIR TEACHERS, FAMILY, AND PEERS. THE MOST OUTSTANDING PROJECTS WERE SELECTED FROM LOCAL SCHOOLS TO PARTICIPATE AND COMPETE IN THE 39TH ANNUAL DISTRICT SCIENCE AND ENGINEERING FAIR. THROUGHOUT THE YEARS, THE CORONA-NORCO UNIFIED SCHOOL DISTRICT (CNUSD) HAS EXPANDED CAREER TECHNICAL EDUCATION (CTE) AND STEM PROGRAMS. AS PART OF OUR LOCAL CONTROL AND ACCOUNTABILITY PLAN (LCAP), WE CONTINUE TO INCREASE THE RATE OF STUDENTS PARTICIPATING IN CTE/STEM PATHWAYS MAPPED TO HIGH GROWTH AND STRONG EMPLOYMENT OPPORTUNITIES. TODAY'S CUTTING-EDGE, RIGOROUS, AND RELEVANT CTE AND STEM CURRICULA PREPARES YOUTH AND ADULTS FOR A WIDE RANGE OF HIGH-WAGE, HIGH-SKILL, HIGH-DEMAND CAREERS; AND HERE AT CNUSD, WE ARE COMMITTED TO OUR ONGOING EFFORTS IN PREPARING OUR STUDENTS FOR THE FUTURE, TODAY.

THE DISTRICT RECOGNIZES EDUCATION IS A PARTNERSHIP, AND WE KNOW THIS WOULD NOT BE POSSIBLE WITHOUT THE SUPPORT OF OUR COMMUNITY. LAST YEAR WE WERE EXCITED TO HAVE SO MANY OF OUR STUDENTS REPRESENT CNUSD AT THE COUNTY, STATE, AND NATIONAL LEVEL. ON BEHALF OF THE CORONA-NORCO UNIFIED SCHOOL DISTRICT BOARD OF EDUCATION AND ADMINISTRATION, I WOULD LIKE TO EXTEND MY SINCERE THANKS TO ALL THE PARENTS AND TEACHERS WHO VOLUNTEERED THEIR TIME AND EFFORTS TO MAKE THIS HAPPEN. CONGRATULATIONS TO EACH PARTICIPANT FOR ACHIEVING EXCELLENCE IN THE FIELD OF SCIENCE; WE APPRECIATE YOUR HARD WORK AND DEDICATION TO YOUR PROJECT.

DR. SAM BUENROSTRO
SUPERINTENDENT



CORONA-NORCO UNIFIED SCHOOL DISTRICT

SCIENCE & ENGINEERING FAIR AWARDS 2023

ELEMENTARY DIVISION (4-5)

AARON RODRIGUEZ	4 TOOTH DECAY	RONDO
ADELINA VENTURA	5 WHAT LIQUID MAKES SHARPIE COME OFF THE BEST?	JEFFERSON
AIDEN ROMERO	5 WHAT LIQUID MAKES EGGS FLOAT THE BEST?	JEFFERSON
AKSHITA SARAYANA	5 LET'S SOLVE THE DROUGHT	LINCOLN
ALICE REICH	5 THE BEST WATER	TODD
ALLISON LUERA	4 HOW CAN YOU MAKE A LIGHT BRIGHTER?	STALLINGS
AMINA QAZI	5 WILL MORINGA OLEIFERA SEED POWDER OR ALUMINUM (ALUM) WORK MORE EFFICIENTLY TO PURIFY GROUND WATER?	ANTHONY
ANGELA	5 HOW DOES THE DEPTH OF A SEED AFFECT GERMINATION?	LINCOLN
ANANTHANANTHAN	5 WHAT ARE ALL THE DIFFERENT AFFECTS (INTERNAL AND EXTERNAL) OF A SOCCER BALL?	FRANKLIN
ANITHA ZACHARIAH	5 HOW DC MOTORS WORK IN VARYING ELECTRIC VOLTAGE	LINCOLN
ANOJAN SATHEES	5 FLOWER POWER	WILSON
AREYA KOCHAR	5 SURFACE CONDITION OF THE SLOPE AND LANDSLIDES	CORONA RANCH
ATPUTHAN SIVATHASAN	5 FLOATING EGG	MCKINLEY
BELLA ZAIDA	4 SOLAR VS. BATTERY	ORANGE
CALEB MEZA	4 BEST LOTION	RONDO
CHANITA HANVOTHINANON	4 POPCORN PARTY	RONDO
CHARLOTTE LANE	5 ZAPPING HERE AND THERE	GARRETSON
CHLOE ZHANG	5 HURRICANES	MCKINLEY
DANIEL WRIGHT	5 BATTERY WARS	LINCOLN
DESMOND SABSOOK	5 WHAT SHOULD BE THE HEIGHT OF THE ROLLERCOASTER IN ORDER FOR IT TO MAKE THE FULL LOOP?	ANTHONY
DIKSHA UPPAL	5 WHICH MASK DOES THE TASK?	GARRETSON
DINA BAKIR	5 TO GROW OR NOT TO GROW	WILSON
DOMINIC PEREZ	5 WHAT LIQUID MAKES SHARPIE COME OFF THE BEST?	JEFFERSON
DYLAN FELIX	4 TO DEGRADE OR NOT DEGRADE	TODD
DYLAN SONE	5 SLIME EXPERIMENT	WILSON
ELEANOR TRUONG	5 BURTSTING YOUR BUBBLES	GARRETSON
ELIZABETH LY	5 GARDENING	MCKINLEY
EMMA TORRES		

ELEMENTARY DIVISION (4-6)

ENAAYA HUMAYUN	4	WHICH MODEL, A, B OR C, WILL CREATE THE FASTEST FLOWING HERON'S FOUNTAIN?	ANTHONY
ETHAN RIOS	5	READY, SET, GROW!	GARRETSON
HUNTER TAUTFEST	5	EFFECTS OF MUSIC AND FOOD ON CHICKEN EGG PRODUCTION	RIVERVIEW
HYRUM WARNER	4	IN WHICH LIQUID WILL A SEED GROW THE BEST?	TODD
IDHANT PAUL	5	MAGNETS RULE	WILSON
INBAA BARATHI	4	SAVE OUR SOIL	RONDO
ISHAN VIRADIA	5	OBESITY IN MY LOCAL COMMUNITY: IS IT A PERSONAL OR COMMUNITY FAILURE ACCORDING TO SCIENCE?	BARTON
JAMES CULHANE	5	SOLAR WINDMILL	RIVERVIEW
JAYDEN GALLOWAY	5	THAT WAS A TAPE MEASURE SHOT	GARRETSON
JOESPH MICHAEL	5	CAR CATASTROPHY	GARRETSON
KATELYN CHENG	4	WHAT WILL BE THE DIFFERENCE BETWEEN THE RESULT OF THICK STEM FLOWERS AND THE RESULT OF THIN STEM FLOWERS WHEN USING THEM TO DO COLOR CHANGING EXPERIMENTS?	ANTHONY
KAYLA ANDERSON	4	SKITTLES-DISSOLVE THE RAINBOW	RIVERVIEW
LESLIE NGUYEN	5	HOW DO DIFFERENT TYPES OF FLOUR AFFECT SOURDOUGH STARTER ACTIVITY?	ANTHONY
LUKE MAHER	5	IT'S CALLED SOCCER	TODD
MACKENZIE YI	5	STRENGTH OF TOILET PAPER	WILSON
MADLINE GULLEDGE	5	GET YOUR SPLITS FAST: IMPROVE YOUR RANGE OF MOTION	RONDO
MENHA QAZI	5	WILL MORINGA OLEIFERA SEED POWDER OR ALUMINUM (ALUM) WORK MORE EFFICIENTLY TO PURIFY GROUND WATER?	ANTHONY
MERIAH CABILDO	5	MUSIC TO MY EARS	GARRETSON
RAGHAV UPPAL	4	HOW MANY 2 X 1/4 X 1/4 INCH MAGNETS WILL IT TAKE TO STOP A TOY TRAIN MOVING DOWNHILL ON A TOY TRACK?	ANTHONY
REINA LEE	5	WHICH MASK WORKS BEST?	GARRETSON
ROBERT GERARD ALCOCER	4	RE-CHOOSE YOUR TEETH OR LOOSE YOUR TEETH	ORANGE
RUTH NELSON	5	EROSION	MCKINLEY
RYAN STEET	4	TOOTH DECAY	RONDO
SAGE HARRIS	4	POPCORN PARTY	RONDO
SONALI VIRADIA	5	HOW BACTERIA FOUND IN YELLOWSTONE GEYSERS HELP FIGHT GLOBAL WARMING	BARTON
SOPHIA ARAMBULA	5	WHAT LIQUID MAKES SHARPIE COME OFF THE BEST?	JEFFERSON
SOPHIA IBRAHIM	5	FRICTION ON COMMON SURFACES	WILSON
TAYLOR HERRON	5	WATER	MCKINLEY
THOMAS MAHER	4	WILL COFFEE HELP PLANTS GROW?	RONDO
VICTORIA DURAN	5	NO HOLDING BACK THE BACK	GARRETSON
VIENNA ZHOU	5	CAN YOU HEAR THE TEMPERATURE?	GARRETSON

ELEMENTARY DIVISION (4-6)

VIRAAT KADAKIA

WALID HAQUANI

WASAY QAZI

WYATT BECK

5 CALIFORNIA DROUGHT AND SOLUTION

4 HOW DOES THE SOUND OF AN OBJECT VARY,
DEPENDING ON THE MASS AND MATERIAL?

5 WILL MORINGA OLEIFERA SEED POWDER OR
ALUMINUM (ALUM) WORK MORE EFFICIENTLY TO
PURIFY GROUND WATER?

4 SOLAR VS. BATTERY

WILSON

STALLINGS

ANTHONY

ORANGE

**JUNIOR DIVISION (6-8)**

ABIGAIL PHAN	8	WHICH FORMS OF SUNBLOCK HAS THE LONGEST DURATION?	RANEY
ADDILYN FOUND	7	DESALINATION AT HOME	CITRUS HILLS
ADISON HOLTZ	6	SUNSCREEN VS. UV RAYS	CORONA RANCH
ADRIÁN BETANCOURT	8	DOES CHANGING THE LOCATION OF A DRINKING FOUNTAIN AFFECT HOW CLEAN IT IS?	AUBURNDALE
AKSHAYA SAYYAPARAJU	6	WHAT'S BLOCKING MY WI-FI?	NORCO EL
ALEX GOMEZ	7	HOW DOES THE WEIGHT OF A HOT WHEEL AFFECT THE DISTANCE TRAVELED?	HOME GARDENS
ALVARO HERMIDA	7	HOW DOES THE WEIGHT OF A HOT WHEEL AFFECT THE DISTANCE TRAVELED?	HOME GARDENS
ALYSSA CARRILLO	6	CAN SCREEN & TEXT COLOR AFFECT RETENTION?	HARADA
AMARYLLIS BARAJAS	8	WILL MODIFYING THE CONFIGURATIONS THAT WORDS ARE FORMATTED INFLUENCE THE STROOP INTERFERENCE TASK REGARDING AN INDIVIDUAL'S RESPONSE TIME & COGNITIVE PERCEPTION?	HOME GARDENS
ANDRUE BURNELL	7	DOES BOUNCING A BALL AFFECT THE AMOUNT OF ENERGY CREATED?	HOME GARDENS
ANGELINA OUK	6	DO TYPES OF WATER AFFECT THE GROWTH OF PINTO BEANS?	HARADA
ANKITHA GARUADAPURI	6	BPA AND THE ENDOCRINE SYSTEM: A CASE STUDY WITH DROSOPHILA PHASE 1	BARTON
ANNEKE MANKOFF	6	LET'S DANCE!	ORANGE
ANNIE TRINH	6	REMEMBER THAT!	CORONA RANCH
ARIANA GARCIA	7	CHEMICAL EFFECTS ON AQUATIC PLANTS	RANEY
ASHA ZACHARIAH	8	WHICH MATERIAL BEST ABSORBS RADIO WAVES & WHICH SHAPE BEST DEFLECTS THEM AWAY FROM THE SOURCE?	CFIS
ASHLYN LUM	8	HOW DO LIGHTS WITH DIFFERENT WAVELENGTHS AFFECT THE MOVEMENT OF PLANARIA?	HOME GARDENS
AUDREY WANG	8	POTATOES: GROWING IN DIFFERENT CONDITIONS	RAMIREZ
AVA GEORGE	8	CAN HOMEMADE WATER FILTRATION SYSTEMS BE EFFECTIVE IN THE EVENT OF A SEVERE WATER CRISIS?	CFIS
AVA LOPEZ	6	PAPER TOWEL TEST	HARADA

JUNIOR DIVISION (6-8)

AYLIN SANDOVAL	6	WHICH FILTRATION MATERIAL LEADS TO THE BEST DRINKING WATER?	HARADA
BELLA HE	8	IF I CHANGE THE POWER SOURCE I CHARGE MY PHONE, WILL IT AFFECT HOW FAST IT CHARGES MY PHONE?	AUBURNDALE
BRANDON CASTRO	8	WHAT TERRAIN IS BEST FOR A POPULATION OF ROLY POLYS?	CFIS
BRAYDEN GOYTIA	7	HOW DO DIFFERENT ACIDS AFFECT THE RUST ON METAL?	RANEY
CAITLIN BUENSUCESO	7	FERMENTATION, PH, & YOU	RANEY
CHARLES TYARS	6	TERRIFIC TUNNELS	RONDO
CHASE DIPAOLO	8	THEORY OF COLOR-TIVITY	ORANGE
CHRISTIAN JOHNSON	6	GEAR RATIO EXPERIMENT	NORCO EL
CLAIRE RITCHEY	7	H ₂ -U _H -O	NORCO INT
CODY GRINDE	6	HOW CAN DIFFERENT LEVEL OF AIR PRESSURE CHANGE THE DISTANCE A BALLOON POWERED CAR CAN TRAVEL?	NORCO EL
CORAL WILLIAMS	8	SOFTBALLS: SPEED VS SIZE	NORCO INT
CRISTOFER HERNANDEZ	7	HOW DOES THE WEIGHT OF A HOT WHEEL AFFECT THE DISTANCE TRAVELED?	HOME GARDENS
CRYSTAL RESENDEZ	8	HOW DOES THE AMOUNT OF SALT OR SUGAR AFFECT THE FREEZING POINT OF WATER?	HOME GARDENS
DANNI BRASHER	8	CHATGPCHEAT	RAMIREZ
DAVID DUMFEH	7	THE MOVEMENT OF FERROFLUID IN DIFFERENT LIQUIDS	CFIS
DIEGO GILES	8	DOES THE AMOUNT OF TIME YOU SLEEP AFFECT YOUR REACTION TIME?	HOME GARDENS
ELIJAH MADERA	8	TASTE THE RAINBOW	AUBURNDALE
ELSIE SOTO	6	HOW DOES SPINNING A COIN ON ITS SIDE AFFECT WHETHER IT LANDS ON HEADS OR TAILS?	STALLINGS
ELYA HUSSEIN	8	HOW DOES THE ANGLE OF A SOLAR PIZZA BOX OVEN AFFECT THE TEMPERATURE OF THE FOOD?	RAMIREZ
EMILY FISHER	6	INSOLATION	NORCO EL
ETHAN BHAKTA	8	CAN GEOTHERMAL ENERGY REDUCE RELIANCE ON THE POWER GRID?	EL CERRITO
ETHAN XIAO	8	SUN'S ANGLE EFFECTS ON ENERGY FLOW	RANEY
EVAN WIDDISON	6	DIRTY WATER NO MORE!	HARADA
FILZA JAMAL	7	WHICH AIRFOIL HAS THE MOST EFFECTIVE CAMBER IN ORDER TO PRODUCE THE MOST LIFT?	CFIS
GILMARA PERALTA	6	¿CÓMO AFECTAN LA FORMA DE IMÁN AL NÚMERO DE SUJETAPAPELES RECOGIDOS?	STALLINGS
PERALTA			
GRAYSON MARVIN	6	ELECTROLYTES:WHICH DRINK IS BEST?	ORANGE

JUNIOR DIVISION (6-8)

HANIA RANA	7	WHICH AIRFOIL HAS THE MOST EFFECTIVE CAMBER IN ORDER TO PRODUCE THE MOST LIFT?	CFIS
HARLEEN VIRK	8	ALTERNATIVES TO AIR CONDITIONING	RAMIREZ
HAYDEN HERRON	7	LET YOUR ELECTROLYTES SHINE	NORCO INT
HUDSON BUCKWALTER	6	SODA THE RUST REMOVER	RONDO
ISABEL BOLADIAN	7	AVIATION POLLUTION	NORCO INT
ISABELLA BULAON	6	HOW DOES A PERSON'S ACTIVITY LEVEL AFFECT MEMORY?	STALLINGS
ISABELLA GUTIERREZ	8	HOW DO PARENTS' ATTITUDES ON UNDERAGE DRINKING AFFECT THEIR CHILDREN?	HOME GARDENS
ISSAC ESPINOZA	8	TAP WATER VS. BOTTLED WATER	AUBURNDALE
JOAQUIN ZOLL	8	STOP THE BITES WITHOUT A FIGHT	RANEY
JORDYN CASTRO	6	THIRSTY PLANTS!	RONDO
JULIANNE LIM	6	CHRYSTAL CLASSIFICATION & CRYSTALLIZATION	RANEY
JULIETA OCHOA	8	IF I CHANGE THE TYPE OF CROCHET STITCH, WILL IT AFFECT THE TIME I FINISH A SQUARE?	AUBURNDALE
KALIYAH FRITH	6	HOW DO DIFFERENT WHITENING TOOTHPASTES AFFECT THE WHITENESS OF TEETH?	STALLINGS
KALLI DE STEUBEN	6	WILL THE WEIGHT OF A PAPER AIRPLANE AFFECT THE DISTANCE IT WILL FLY?	NORCO EL
KATHLEEN SANDOVAL	8	HOW TO MAKE A RIFLE OUT OF MAGNETS	NORCO INT
KATIA GARCIA	8	IF I CHANGE THE CANDLE BRAND, WILL IT AFFECT HOW FAST THE CANDLE BURNS?	AUBURNDALE
KERRAM HADDAD	6	LIGHTBULB GLOW TEST	ORANGE
KHLOE JAUREGUI	8	NAME BRAND VS STORE BRAND	NORCO INT
KIMBERLY OROZCO	6	LIQUID VISCOSITY	NORCO EL
LEO WEN	8	HOW DOES ELECTRICITY AFFECT THE GROWTH OF PLANTS?	HOME GARDENS
LEVI RAMIREZ	7	HOW EFFECTIVE ARE SUNGLASSES AT ABSORBING UV RAYS?	CFIS
LIAM PARTIDA	6	TERRIFIC TUNNELS	RONDO
LILIANA ALARCON	6	DOES THE BRAND OF POPCORN AFFECT HOW MANY UNPOPPED KERNELS THERE ARE?	HOME GARDENS
LOGAN IBARRA	6	SODA THE RUST REMOVER	RONDO
LUCY CROMWELL	6	HOW DOES POLLUTED WATER AFFECT OUR AGRICULTURE?	CHAVEZ
LYLA GONZALEZ	6	DOES THE BRAND OF MARSHMALLOW AFFECT HOW FAR IT WILL LAUNCH IN A MARSHMALLOW CATAPULT?	STALLINGS
MARISCAL			
MADISON NEE	8	THE EFFECT THAT STRESS HAS ON YOUR BODY TEMPERATURE	RAMIREZ
MAIYA SURIO	8	POTATOES:GROWING IN DIFFERENT CONDITIONS	RAMIREZ
MAKENNA URENA	6	COMPARING THERMAL INSULATION	ORANGE
MARLEN LOPEZ	8	IF I CHANGE MY MASCARA, WILL IT AFFECT THE LENGTH OF MY LASHES?	AUBURNDALE

JUNIOR DIVISION (6-8)

MASON HARDICK	6	PUT SOME ICE ON IT.	FRANKLIN
MATTEO LOPEZ	8	GROUNDED OR GROUNDDEAD	AUBURNDALE
MATTHEW CIESLIK	6	TESTING DOMINOES GRAVITY	NORCO EL
MCKYNNA MURPHY	8	MOISTURIZER FIGHTS ECZEMA	RANEY
MIABELLA PEREZ	7	DOES THE AIR PRESSURE OF A SOCCER BALL AFFECT HOW FAR IT TRAVELS?	HOME GARDENS
MICHAEL "SCARLETT" JAQUES	8	IF I CHANGE THE AMOUNT OF BAKING SODA IN A BATCH OF COOKIES, WILL IT AFFECT THE TASTE?	AUBURNDALE
MICK CHEN	8	BACTERIOPHAGES VS. HERBS	RANEY
MILEY REDARD	6	DO TYPES OF WATER AFFECT THE GROWTH OF PINTO BEANS?	HARADA
NATALI TENORIO	8	IF I USE CASTOR OIL ON THE NAILS FOR TWO WEEKS, HOW LONG WILL THEY GROW?	AUBURNDALE
NICOLAS ROMO	8	HOW DO DIFFERENT PH SOIL LEVELS AFFECT A PLANT'S HEIGHT?	HOME GARDENS
NILAY PATEL	8	HOW DOES HEIGHT AFFECT THE AMOUNT OF SOLAR ENERGY BEING GENERATED?	RAMIREZ
NOLAN NAJAR	6	DOES THE TYPE OF SOIL AFFECT THE GROWTH OF A BEAN PLANT?	HOME GARDENS
OLIVIA CHIANG	7	COMPARISON OF INORGANIC AND ORGANIC FERTILIZERS	RANEY
OLIVIA HERRERA	6	ANTACID TEST	HARADA
OSCAR IRIBE	6	OVER WHICH SURFACE WILL A REMOTE CONTROL CAR TRAVEL THE FASTEST?	STALLINGS
PARKER WITTIG	6	COLOR TEMPTURENO	NORCO EL
PATRICK LEWIS	6	HOW DIFFERENT LIQUIDS AFFECT PLANT GROWTH	RONDO
PEYTON HUMPHRIS	8	EMERGENCY WATER FILTER	NORCO INT
PRANAY PRADHAN	6	EXPIRED SEEDS FROM THE DEAD	RANEY
RONNIE FAKHOURY	6	HEAT ABSORPTION FOR COLORS	NORCO EL
RYLAND DALGLISH	6	CAN MUSIC CHANGE YOU?	ORANGE
SANDY PAXTOR	8	HOW DO PARENTS' ATTITUDES ON UNDERAGE DRINKING AFFECT THEIR CHILDREN?	HOME GARDENS
SAANVI CHANDLA	7	MICROBIAL PLANTS	RANEY
SAHANA SHARMA	7	EFFECT OF ACID RAIN ON PLANT GROWTH	RANEY
SAI SRINIKAI BOMMINENI	7	HEAT THROUGH COLORS	RIVER HEIGHTS
SARA CARRILLO	7	THE RISE OF THE PH: DOES THE PH LEVEL OF A FRUIT AFFECT THE BAKING PROCESS OF BAKED GOODS?	HOME GARDENS
SARAH LANGLOIS	8	TO BAG OR NOT TO BAG	NORCO INT
SCARLETT PARZE	8	IF I CHANGE THE AMOUNT OF SALT IN WATER, WILL IT AFFECT AN EGG & HOW HIGH IT FLOATS?	AUBURNDALE
SEBASTIAN BACA	7	HOW DO DIFFERENT FILTERS AFFECT THE CLEANLINESS OF WATER?	HOME GARDENS
SENNAN PATEL	6	HOW DIFFERENT LIQUIDS AFFECT PLANT GROWTH	RONDO

JUNIOR DIVISION (6-8)

SERGIO ZAVALA	6	DO THE DIFFERENT KINDS OF SALTS AFFECT HOW ICE MELTS?	HOME GARDENS
SI-JING YAN	8	ROOTING HORMONE:WHAT IS IT'S EFFECT ON SCALLION STEM CUTTINGS?	RANEY
SOPHEA R. HERNANDEZ	8	HOW DOES THE AMOUNT OF SALT OR SUGAR AFFECT THE FREEZING POINT OF WATER?	HOME GARDENS
SOPHIA DÍAZ	6	ELECTROLYTE CHALLENGE	HARADA
TAIYO ADAMS	6	SCOOP ON DOG POOP	ORANGE
TARINI SIRAM	7	ELECTROLYTES COMPARISON USING RENEWABLE ENERGY	RIVER HEIGHTS
TREVON NGUYEN	8	TESTING THE CONSISTENCY OF BACTERIA ON FRUITS & VEGETABLES ACROSS MULTIPLE GROCERY STORES	RANEY
TYLER QUINTOS	6	WHAT IS THE BEST ANGLE FOR A SOLAR PANEL?	FRANKLIN
WAQAS HAQUANI	6	WHICH LIQUID WILL DECAY THE FASTEST?	STALLINGS
YASIRU JAYATHILAKE	7	CYCLING BLOOD SUGAR	NORCO INT
YUEN DING	8	WHICH FORMS OF SUNBLOCK HAS THE LONGEST DURATION?	RANEY
ZACHARY HUMPHRIS	6	WILL THE DENSITY OF A MENTO AFFECT THE GEYSER OF COKE?	NORCO EL
ZADIE PEREZ	8	DOES THE AMOUNT OF TIME YOU SLEEP AFFECT YOUR REACTION TIME?	HOME GARDENS



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SENIOR DIVISION (9-12)

AARANIE SRIKANTHAN	11	HYDROPONICS! THE BETTER WAY TO WATER YOUR PLANTS	CORONA
AAYAH KISSANI	9	SUN EXPOSURE	CORONA
ABDULKARIM LABANIEH	11	BODY REFLECTION & CONVERSION	CENTENNIAL
ABHINAV SIRAM	10	AN IN VITRO ANALYSIS OF ORGANIC SUGARY FOODS ON THE GROWTH OF PROBIOTICS	ESTEM/ERHS
AIDAN BOZE	11	CURING NAILS OR SKIN	CENTENNIAL
ANGELINA YANG	11	POLYMER DEGRADABILITY ENABLED BY CYCLIC KETENE ACETAL INCORPORATION	ESTEM/ERHS
ANISHA PRASAD	12	INCORPORATING PLASMID DNA INTO ESCHERICHIA COLI	CENTENNIAL
ANTHONY EDWARDS	11	AFFORDABLE RECHARGEABLE THERMAL BATTERIES	CENTENNIAL
ARJUN SHAH	10	DETERMINING ANTIMICROBIAL EFFECTS IN REGARD TO FRUIT EXTRACTS	CENTENNIAL
AUBREY TAPIA	11	ARROW WEIGHT PENETRATION	CENTENNIAL
BARRIN CARIAGA	11	MICROPLASTICS & SOIL	CENTENNIAL
BRANDON HUYNH	11	PH & LIGHT VS. HYDROPONICS	CENTENNIAL
BRIANA OROZCO	11	CYCLE OF METAMORPHOSIS	CENTENNIAL
BRYANT KELLY	12	ELECTROSTATIC IONIC THRUSTER	CENTENNIAL
CALEB DYAL	10	SOIL MOISTURE RETENTION IN DIFFERENT TURFGRASSES	CENTENNIAL
CARSON RUHNKE	11	WHICH TURBINE PRODUCES THE MOST ENERGY	SANTIAGO
CHALDRIN CASTRO	11	UV VS YEAST	CENTENNIAL
CHASE TRASK	11	AUGMENTED WATER DISTILLER	SANTIAGO
DANIEL PARK	12	BRAKE SYSTEMS	CENTENNIAL
DANIELLA DOLLOSO	12	METHANE PRODUCTION	CENTENNIAL
DENNIS ZHAO	11	STUDY OF ENERGY THROUGHPUT OF SUN TRACKING SOLAR ARRAY	ESTEM/ERHS
DEREK ZHANG	9	CALCIUM HYPOCHLORITE AS AN ALTERNATIVE TO THIRD GENERATION OIL DISPERSANTS	ESTEM/ERHS
EILEEN LIN	11	EXOPLOER: COMBINING USER INTERFACE DEVELOPMENT AND MACHINE LEARNING TO CREATE AN ACCESSIBLE LEARNING ENVIRONMENT	ESTEM/ERHS
ELIZABETH MATTAR	10	DIFFERENT FERTILIZATION SOLUTIONS FOR A HYDROPONIC HOUSEPLANTS	CORONA

SENIOR DIVISION (9-12)

EMILY LI	10	TRACK IT DOWN: A MOBILE APPLICATION FOR VOLUNTEER HOURS TRACKING	ESTEM/ERHS
ETHAN MIR	11	THE EFFECT OF ACE-INHIBITORS ON ACE-2 EXPRESSION	CENTENNIAL
GAVIN TAN-TORRES	12	CANTILEVER CARNIVAL	CENTENNIAL
GAVIN WALSH	9	CROSSBOW VS AIR CANNON	SANTIAGO
HANA MOHAMMAD	10	HOMEMADE MENSTRUAL PADS	CENTENNIAL
HUNTER TRINH	9	ONE IN FORTY-THREE QUINTILLION	SANTIAGO
ISAAC RAMIREZ	10	PESTICIDES VS. WORMS	CENTENNIAL
ISHAAN GUPTA	10	DETERMINING ANTIMICROBIAL EFFECTS IN REGARD TO FRUIT EXTRACTS	CENTENNIAL
JACKSON HOLSTER	11	LACROSSE POCKET VS SPEED	CENTENNIAL
JACQUELINE BELTRAN	10	IS IT POSSIBLE TO REUSE POLYPROPYLENE, HDPE AT HOME?	SANTIAGO
JASLEEN GREWAL	10	ACTIVATED CHARCOAL FOR WATER FILTRATION	ESTEM/ERHS
JAYDEN DAYA	10	MORE STRENGTH, MORE SPEED	CORONA
JESSE TIGNO	12	BRAKE SYSTEMS	CENTENNIAL
JORDYN BLAIR	12	THE WORDING EFFECT	SANTIAGO
JOSHUA CARVAJAL	11	MAKING ECO-FRIENDLY PLASTIC	CENTENNIAL
JUBILEE YU	10	TRACK IT DOWN: A MOBILE APPLICATION FOR VOLUNTEER HOURS TRACKING	ESTEM/ERHS
JUSTIN CHOI	9	FILTERING GREYWATER USING PLANT ROOTS	CENTENNIAL
KATELYN DULCO	9	DOES A PERSONS POSTURE AFFECT HOW ITS HORSE SLIDES?	CORONA
KAVYA KADAKIA	10	CORRELATION OF STRESS AND PERIODONTAL DISEASE	CENTENNIAL
KHAI PHAM	11	FABRICS AND HEAT	CORONA
KIM PHAM	11	STOP POLLUTION QUICK! DON'T MAKE THE WATER SICK!	CORONA
KION LEE	12	WE KNOW DUST MATTERS, BUT BY HOW MUCH	CENTENNIAL
KRISH RAVAL	11	NOVEL PARTIAL DIFFERENTIAL ANALYSIS FOR TURMERIC REACTION AGAINST EPITHELIAL CELLS IN VITRO	SANTIAGO
KRRISHIKA SAXENA	11	INCORPORATING A HIGHLY SENSITIVE GRAPHENE NANOMATERIAL AND UTILIZING AN IOT BASED ECG MONITORING IN WEARABLE SENSORS TO DETECT THE ONSET OF CARDIAC ARREST	ESTEM/ERHS
LARA RANDHAWA	9	HALT APP: HEALTH AND LIFESTYLE TOGETHER FOR PREVENTION OF BMI ESCALATION IN CHILDREN	CORONA
LOUIS NGUYEN	11	AFFORDABLE RECHARGEABLE THERMAL BATTERIES	CENTENNIAL
MADISON ZEHNTNER	10	DETERMINING ANTIMICROBIAL EFFECTS IN REGARD TO FRUIT EXTRACTS	CENTENNIAL
MAHIMA MANGAMURI	9	GENE EDITING WITH CRISPR CAS9	ESTEM/ERHS
MARK HUO	12	CANTILEVER CARNIVAL	CENTENNIAL
MELISSA ARANA	12	SALINITY VS. OIL SPILL	CENTENNIAL

SENIOR DIVISION (9-12)

MELISSA LINARES	12	STRAW DECOMPOSITION	CENTENNIAL
MELISSA LINARES	12	HOW EFFECTIVE IS HUMULIN COMPARED TO HUMAN INSULIN ON TYPE 1 DIABETICS	CENTENNIAL
MIGUEL HERNANDEZ	12	SALINITY VS. OIL SPILL	CENTENNIAL
NIKHIL REDDY	9	MULTITASKING: EFFICIENT OR NOT?	SANTIAGO
PAREESA FAWAD	12	HOW DOES CAFFEINE IMPACT PROTEIN DENATURATION?	CENTENNIAL
PAREESA FAWAD	12	DUCKWEED VS. POLLUTION	CENTENNIAL
PENGYUE (MIKE) TIAN	11	TESTING VARYING MICROPLASTICS' EFFECTS ON DROSOPHILA MELANOGASTER	ESTEM/ERHS
PENGXIANG (MARK) TIAN	11	MAKING FOREST SURVEY DRONES A VIABLE SOLUTION TO PREVENT WILDFIRES	ESTEM/ERHS
PERCY TRUYENQUE	11	FERROFLUIDS AND THEIR EFFECTS UNDER MAGNETIC FIELDS BASED ON THE SUFACTANT COMPOSITION	CORONA
PETER YOON	12	RECYCLING IMAGE DETECTION	CENTENNIAL
PIPER HESS	9	CONTAMINATED PRODUCE	CORONA
POGCHETTRA IM	11	LACROSSE POCKET VS SPEED	CENTENNIAL
PRANAVI BETHAPUDI	9	WHAT KINDS OF NATURAL PRODUCTS ARE EFFECTIVE FOR HYPOTHYROIDISM?	ESTEM/ERHS
PRINCESS CHANDROO	11	WATER COST VS PLANTS	CENTENNIAL
RANIA GAUHAR	11	PLASTIC DECOMPOSITION WITH WORMS	CENTENNIAL
RUILIN (JONATHAN) LI	9	CALCIUM HYPOCHLORITE AS AN ALTERNATIVE TO THIRD GENERATION OIL DISPERSANTS	ESTEM/ERHS
RUIQI (RICKY) ZHANG	9	CALCIUM HYPOCHLORITE AS AN ALTERNATIVE TO THIRD GENERATION OIL DISPERSANTS	ESTEM/ERHS
RYLEE COOMBER	12	THE WORDING EFFECT	SANTIAGO
RYLEE LINGWALL	10	MORE STRENGTH, MORE SPEED	CORONA
SAMANTHA FLOYD	10	DIFFERENT FERTILIZATION SOLUTIONS FOR A HYDROPONIC HOUSEPLANTS	CORONA
SARAH BATONGBACAL	10	CHILDHOOD TOYS & CAREER CHOICE	SANTIAGO
SEAN KIM	12	EPOXY CURING	CENTENNIAL
SEAN NGUYEN	9	ONE IN FORTY-THREE QUINTILLION	SANTIAGO
SOFIA NGUYEN	11	CURING NAILS OR SKIN	CENTENNIAL
SURAJ JAYARAMAN	12	RECYCLING IMAGE DETECTION	CENTENNIAL
SYED ALI	11	CRISPR MANIPULATION	CENTENNIAL
TALUNA TAKE-SEAGAL	10	IS IT POSSIBLE TO REUSE POLYPROPYLENE, HDPE AT HOME?	SANTIAGO
TANISHA VATANDAR	12	EFFICACY OF O. TENUIFLORUM AS AN ANTIMICROBIAL AGENT	CENTENNIAL
TESSA KING	11	SEW STRONG	CENTENNIAL
THOMAS SHERMAN	11	ROCKETS	CENTENNIAL
TRICSZHA MACAM	11	CYCLE OF METAMORPHOSIS	CENTENNIAL

SENIOR DIVISION (9-12)

TRINITY PINEDO	12	STRAW DECOMPOSITION	CENTENNIAL
TRINITY SHAKER	12	GENETIC SIMILARITY	CENTENNIAL
TROY LA GRASS	11	AFFORDABLE RECHARGEABLE THERMAL BATTERIES	CENTENNIAL
VERENIZE YEPEZ	11	MAKING ECO-FRIENDLY PLASTIC	CENTENNIAL
VICTOR XIAO	12	WHAT IS THE RELATIONSHIP BETWEEN THE CONTACTED SURFACE AREA OF AN OBJECT AND THE FLUID DRAG OPPOSED UPON THAT OBJECT WHEN TRAVELING THROUGH A FLUID?	CENTENNIAL
WENDY ALEJO	11	BODY REFLECTION & CONVERSION	CENTENNIAL
XINING WANG	12	ROTATIONAL VELOCITY	CENTENNIAL
YUHAN (JESSICA) ZHANG	10	ACTIVATED CHARCOAL FOR WATER FILTRATION	ESTEM/ERHS
ZAMAAN MUZAFFER	11	AFFORDABLE RECHARGEABLE THERMAL BATTERIES	CENTENNIAL
ZEBA BALOUCH	12	WIND ENERGY	CENTENNIAL
ZOEYA MANSOOR	10	WHICH PAIN RELIEVER WORKS THE FASTEST?	CORONA



CORONA-NORCO UNIFIED SCHOOL DISTRICT
SCIENCE & ENGINEERING FAIR
AWARDS 2023

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SUPERINTENDENT

DR. LISA SIMON

DEPUTY SUPERINTENDENT

DR. REGINALD THOMPkins

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INSTRUCTIONAL SUPPORT

DALIA GADELMAWLA

ASSISTANT SUPERINTENDENT -
BUSINESS SERVICES

GLEN GONSALVES

ASSISTANT SUPERINTENDENT -
HUMAN RESOURCES

BEN ODIPO

ASSISTANT SUPERINTENDENT -
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CORONA RANCH
CORONITA
EISENHOWER
FOOTHILL

FRANKLIN
GARRETSON

HARADA

HIGHLAND
JEFFERSON
LINCOLN ALTERNATIVE
MCKINLEY
NORCO

ORANGE

PARKS
RIVERVIEW

RONDO

SIERRA VISTA
STALLINGS
TEMESCAL
WILSON

SITE COORDINATOR

JENNIFER WALASEK
MARGARET GREENE LOPEZ
CHRISTINE RICHENS
RICHARD HALE
DANIELLE MULKAY
JANET STEWART &
SUSAN HOPPER
DOROTHY VASQUEZ
BOBBIE GOLDSTEIN &
THI DUONG
ANGELA LOPEZ &
JENNIFER GONZALEZ
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JENNIFER KENNEDY
CLAIRE SCOTT
JINJER GOAD &
KATHLEEN LUCIUS
SUZETTE RODRIGUEZ &
KARA PRICE
CAREEN TALAVERA
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JENNIFER WOJCIECHOWSKI
CORYNN STUCK &
VERA KILZI &
SELICA ZAMARO
RODNEY GAMBLE
LISA MORANO
KEITH ARMBRUSTER
BARBARA NEGRO &
CARRI GRANT

K-8

SCHOOL NAME

CESAR CHAVEZ
HOME GARDENS

TODD

SITE COORDINATOR

WILLIAM WORK
KATHERINE ALLEMAN &
SUZANE ALVAREZ &
LAURA VAZQUEZ
RANDY RICHMOND &
SUZANNE REILLY

INTERMEDIATES

SCHOOL NAME

AUBURNDALE
CITRUS HILLS
CFIS
EL CERRITO
NORCO
RAMIREZ
RANEY
RIVER HEIGHTS

SITE COORDINATOR

MIRNA SILVA
JOAN WOLKON
LYNNE VANNICE
JEREMY CHONG
GARETH PANDY
MARCELLA BRASHER
EMMY KIM
JOLEEN ZAMMIT

HIGH SCHOOLS

SCHOOL NAME

CENNTENNIAL

CORONA
KENNEDY
SANTIAGO
SCHOOL OF INNOVATION

ESTEM/ERHS

SITE COORDINATOR

SUNNY KAURA &
LINDSEY STOTTS
COLEEN HOLTZ
TAMARA MARTIN-RYLES
TRACY ESPINOSA
MICHELLE ARIAS &
DOUG KLATT
LINDSEY MOULTON &
DAVELYN RIME &
LINDA HO